Inventor Search

OWENS 09/472,110

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=> d his

     (FILE 'HOME' ENTERED AT 14:31:38 ON 27 JAN 2003)

     FILE 'HCAPLUS' ENTERED AT 14:31:47 ON 27 JAN 2003
                E SCHWARTZ H/AU
L1            91 S E79-80,E3,E9
L2            27 S BLACKMORE J?/AU
L3            15 S CORTESE S?/AU
L4            71 S OPPELT W?/AU
L5           196 S L1-4
L6             3 S L5 AND POLYACID
L7             4 S L5 AND POLYETHER
L8             7 S L5 AND ADHESION
L9             7 S L6-8   7 citations
                  SELECT RN L9 1-7  selecting Reg #'s from 7 citations

     FILE 'REGISTRY' ENTERED AT 14:34:39 ON 27 JAN 2003
L10           91 S E97-187   91 cpds in L9 cites
                  SAVE L10 TEMP OWE110I/A

     FILE 'HCAPLUS' ENTERED AT 14:35:16 ON 27 JAN 2003
L11            6 S L9 AND L10
L12            7 S L9 OR L11  7 cites w/ 91 cpds displayed
```

=> d ibib abs hitstr ind 1-7

L12 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:577105 HCAPLUS
TITLE: Double blind, placebo controlled trial of the remission inducing and steroid sparing properties of an ICAM-1 antisense oligodeoxynucleotide, alicaforsen (ISIS 2302), in active steroid dependent Crohn's disease
AUTHOR(S): Yacyshyn, B. R.; Chey, W. Y.; Goff, J.; Salzberg, B.; Baerg, R.; Buchman, A. L.; Tami, J.; Yu, R.; Gibiansky, E.; Shanahan, W. R.; Anderson, F.; Koval, G.; Barish, C.; Safdi, M.; Taniguchi, D.; Sutherland, L.; Rutgeerts, P.; Depew, W.; Pruitt, R.; Hanauer, S.; Winston, B.; Dolin, B.; Koltun, W.; McCabe, R.; Scholmerich, J.; Van Deventer, S.; Wild, G.; Breiter, J.; Burakoff, R.; Deren, J.; Linne, J.; Regueiro, M.; **Schwartz, H.**; Shivakumar, B.; Binion, D.; Cattano, C.; Colombel, J.; Galandiuk, S.; Katz, J.; Rustgi, V.; Springgate, C.; Varilek, G.; Dalke, D.; Herzog, L.; Lamet, M.; Pambianco, D.; Singleton, J.; Torres, E.; Van Dullemen, H.; Baldassano, R.; Cortese, F.; James, D.; Moses, P.; Raedler, A.; Riff, D.; Stanton, D.; Wilkofsky, S.
CORPORATE SOURCE: ISIS 2302-CS9 Investigators, University of Alberta, Edmonton, AB, Can.
SOURCE: Gut (2002), 51(1), 30-36
CODEN: GUTTAK; ISSN: 0017-5749
PUBLISHER: BMJ Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To evaluate the safety and efficacy of the intercellular **adhesion** mol. 1 (ICAM-1) antisense phosphorothioate oligonucleotide alicaforsen (ISIS 2302) in Crohn's disease. Active (Crohn's disease activity index (CDAI) 200-350), steroid dependent (prednisone 10-40 mg) Crohn's patients were randomised into three treatment groups: placebo vs. ISIS 2302 (2 mg/kg i.v. three times a week) for two or four weeks. Patients were treated in months 1 and 3, with steroid withdrawal attempted by week 10. The primary end point (steroid free remission) was a CDAI < 150 off steroids at the end of week 14. A total of 299 patients were enrolled, with a mean baseline CDAI of 276 and steroid dose of 23 mg/day. Rates of steroid free remission were equiv. for the two and four week ISIS 2302 groups (20.2% and 21.2%) and the placebo group (18.8%). At week 14, steroid withdrawal was successful in more ISIS 2302 patients compared with placebo treated patients (78% v 64%; p=0.032). Steroid free remission was highly correlated with exposure (p=0.0064). Other clin. responses were correlated with exposure, with significant results vs. placebo being obsd. in the highest area under the curve subgroup. CDAI scores decreased by 136 (112) at week 14 vs. 52 (107) for placebo (p=0.027) and inflammatory bowel disease score questionnaire improved by 43 (31) vs. 15 (36) for placebo (p=0.027). Although the primary outcomes failed to demonstrate efficacy, pharmacodynamic modeling suggests that alicaforsen (ISIS 2302) may be an effective therapy for steroid dependent Crohn's disease.
CC 1 (Pharmacology)
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:816464 HCAPLUS
DOCUMENT NUMBER: 135:362573

TITLE: Hemostatic compositions of **polyacids** and polyalkylene oxides
INVENTOR(S): **Cortese, Stephanie M.; Schwartz, Herbert E.; Oppelt, William G.**
PATENT ASSIGNEE(S): Fziomed, Inc., USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001082937	A1	20011108	WO 2001-US13520	20010426
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002010150	A1	20020124	US 2001-843588	20010426
US 2002028181	A1	20020307	US 2001-843194	20010426

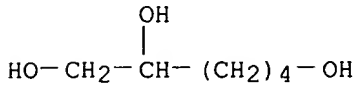
PRIORITY APPLN. INFO.:
US 2000-200457P P 20000428
US 2000-200637P P 20000428
US 1999-472110 A 19991227

AB The present invention relates to improved methods for making and using hemostatic, bioadhesive, bioresorbable, anti-**adhesion** compns. made of intermacromol. complexes of carboxyl-contg. polysaccharides, **polyether**, **polyacids**, polyalkylene oxides, and optionally including multivalent cations and/or polycations and/or hemostatic agents. The polymers can be assocd. with each other, and are then either dried into membranes or sponges, or are used as fluids, gels, or foams. Hemostatic, bioresorbable, bioadhesive, anti-**adhesion** compns. are useful in surgery to prevent bleeding and the formation and reformation of post-surgical **adhesions**. The compns. are designed to breakdown in-vivo, and thus be removed from the body. The hemostatic, anti-**adhesion**, bioadhesive, bioresorptive, antithrombogenic and/or phys. properties of such compns. can be varied as needed by carefully adjusting the pH, solids content cation content of the polymer casting solns., **polyacid** compn., the polyalkylene oxide compn., or by adding hemostatic agents. Hemostatic membranes, gels and/or foams can be used concurrently. Hemostatic, antiadhesion compns. may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally. CMC/PEO membranes, esp. the 50/50 CMC/PEO membrane, is highly anti-thrombogenic, based on the redn. in the no. of adherent platelets and the extent of platelet activation on these surfaces. Thus, increasing the amt. of PEO in membranes increases their antithrombogenic properties.

IT **75-21-8**, Ethylene oxide, biological studies **106-69-4**, 1,2,6-Hexanetriol
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hemostatic compns. of **polyacids** and polyalkylene oxides)

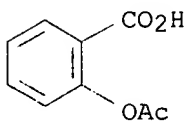
RN 75-21-8 HCAPLUS
CN Oxirane (9CI) (CA INDEX NAME)

RN 106-69-4 HCAPLUS
CN 1,2,6-Hexanetriol (8CI, 9CI) (CA INDEX NAME)



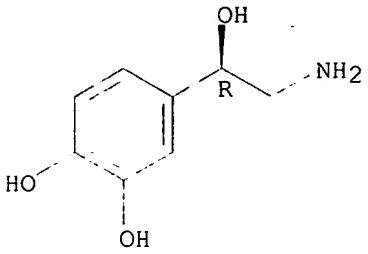
IT **50-78-2**, Aspirin **51-41-2**, Norepinephrine **51-43-4**
, Epinephrine **51-61-6**, Dopamine, biological studies
54-49-9, Metaraminol **56-81-5**, Glycerol, biological
studies **57-55-6**, Propylene glycol, biological studies
77-99-6, Trimethylolpropane **101-40-6**, Propylhexedrine
102-76-1, Triacetin **107-21-1**, Ethylene glycol,
biological studies **111-29-5**, 1,5-Pentanediol **299-42-3**,
Ephedrine **390-28-3**, Methoxamine **1398-61-4**, Chitin
7429-90-5, Aluminum, biological studies **7439-89-6**, Iron,
biological studies **7439-95-4**, Magnesium, biological studies
7439-96-5, Manganese, biological studies **7440-47-3**,
Chromium, biological studies **7440-66-6**, Zinc, biological studies
7440-70-2, Calcium, biological studies **9000-69-5**, Pectin
9002-04-4, Thrombin **9003-01-4**, Polyacrylic acid
9004-32-4, Carboxymethyl cellulose **9004-42-6**,
Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid
9005-32-7, Alginic acid **9005-37-2**, Propylene glycol
Alginate **9005-49-6**, Heparin, biological studies
9007-28-7, Chondroitin sulfate **9044-05-7**, Carboxymethyl
dextran **9050-30-0**, Heparan sulfate **14838-15-4**,
Phenylpropanolamine **15687-27-1**, Ibuprofen **22071-15-4**,
Ketoprofen **25087-26-7**, Polymethacrylic acid **25322-68-3**
, Polyethylene glycol **25322-69-4**, Polypropylene glycol
25395-31-7, Diacetin **26009-03-0**, Polyglycolic acid, SRU
26023-30-3, Poly(lactic acid), SRU **26100-51-6**,
Poly(lactic acid) **26124-68-5**, Polyglycolic acid
26446-35-5, Monoacetin **26876-05-1**, Poly(terephthalic
acid) **28728-97-4**, Poly(4-hydroxybutyric acid), sru
29894-36-8, Polymannuronic acid **36562-70-6**,
Polyguluronic acid **36655-86-4**, Polyglucuronic acid
50851-57-5, Polystyrenesulfonic acid **83512-85-0**,
Carboxymethyl chitosan **106392-12-5**, Polyethylene
glycol-Polypropylene glycol block copolymer **114959-05-6**,
Poly(4-hydroxybutyric acid) **139639-23-9**, Tissue plasminogen
activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic compns. of **polyacids** and polyalkylene oxides)

RN 50-78-2 HCAPLUS
CN Benzoic acid, 2-(acetyloxy)- (9CI) (CA INDEX NAME)



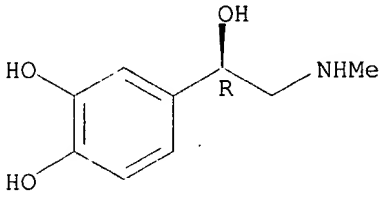
RN 51-41-2 HCAPLUS
CN 1,2-Benzenediol, 4-[(1R)-2-amino-1-hydroxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

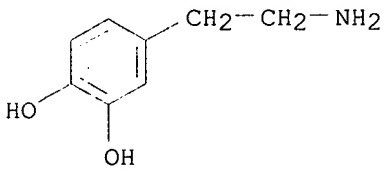


RN 51-43-4 HCAPLUS
CN 1,2-Benzenediol, 4-[(1R)-1-hydroxy-2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

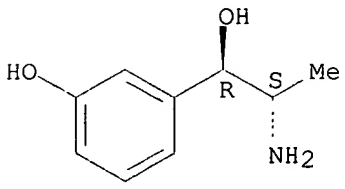


RN 51-61-6 HCAPLUS
CN 1,2-Benzenediol, 4-(2-aminoethyl)- (9CI) (CA INDEX NAME)



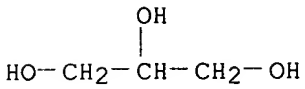
RN 54-49-9 HCAPLUS
CN Benzenemethanol, .alpha.-[(1S)-1-aminoethyl]-3-hydroxy-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

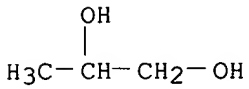


RN 56-81-5 HCAPLUS

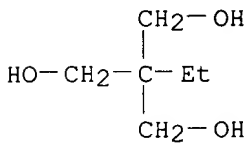
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



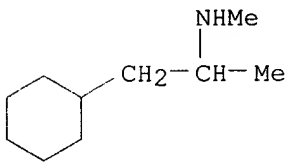
RN 57-55-6 HCAPLUS
CN 1,2-Propanediol (8CI, 9CI) (CA INDEX NAME)



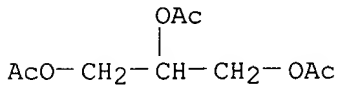
RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



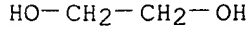
RN 101-40-6 HCAPLUS
CN Cyclohexaneethanamine, N,.alpha.-dimethyl- (9CI) (CA INDEX NAME)



RN 102-76-1 HCAPLUS
CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

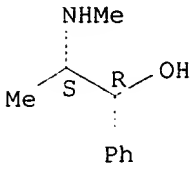


RN 111-29-5 HCAPLUS
CN 1,5-Pentanediol (8CI, 9CI) (CA INDEX NAME)

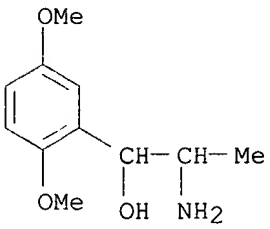
HO— $(CH_2)_5$ — OH

RN 299-42-3 HCAPLUS
CN Benzenemethanol, .alpha.-[(1S)-1-(methylamino)ethyl]-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 390-28-3 HCAPLUS
CN Benzenemethanol, .alpha.-(1-aminoethyl)-2,5-dimethoxy- (9CI) (CA INDEX NAME)



RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 7429-90-5 HCAPLUS
CN Aluminum (8CI, 9CI) (CA INDEX NAME)

Al

RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7439-96-5 HCAPLUS
CN Manganese (8CI, 9CI) (CA INDEX NAME)

Mn

RN 7440-47-3 HCAPLUS
CN Chromium (8CI, 9CI) (CA INDEX NAME)

Cr

RN 7440-66-6 HCAPLUS
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

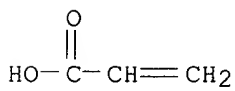
RN 9000-69-5 HCAPLUS
CN Pectin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9002-04-4 HCAPLUS
CN Thrombin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

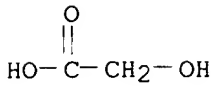
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-42-6 HCAPLUS
CN Cellulose, 2-carboxyethyl ether (9CI) (CA INDEX NAME)

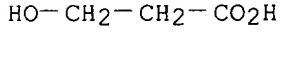
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 503-66-2
CMF C3 H6 O3



RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-37-2 HCAPLUS
CN Alginic acid, ester with 1,2-propanediol (8CI, 9CI) (CA INDEX NAME)

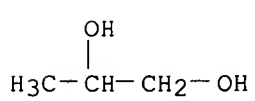
CM 1

CRN 9005-32-7
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9005-49-6 HCAPLUS

CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

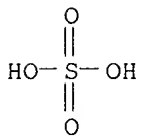
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9044-05-7 HCAPLUS
CN Dextran, carboxymethyl ether (9CI) (CA INDEX NAME)

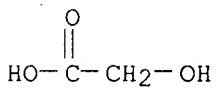
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9050-30-0 HCAPLUS
CN Heparan, sulfate (9CI) (CA INDEX NAME)

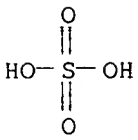
CM 1

CRN 70226-44-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

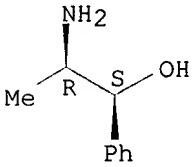
CM 2

CRN 7664-93-9
CMF H2 O4 S

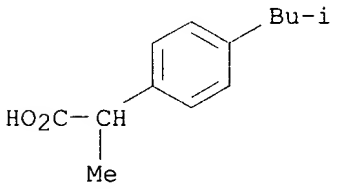


RN 14838-15-4 HCAPLUS
CN Benzenemethanol, .alpha.-[(1R)-1-aminoethyl]-, (.alpha.S)-rel- (9CI) (CA INDEX NAME)

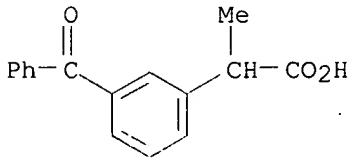
Relative stereochemistry.



RN 15687-27-1 HCAPLUS
CN Benzeneacetic acid, .alpha.-methyl-4-(2-methylpropyl)- (9CI) (CA INDEX NAME)



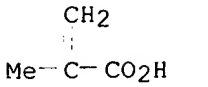
RN 22071-15-4 HCAPLUS
CN Benzeneacetic acid, 3-benzoyl-.alpha.-methyl- (9CI) (CA INDEX NAME)



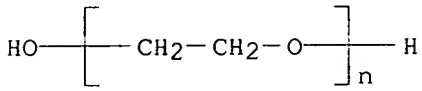
RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

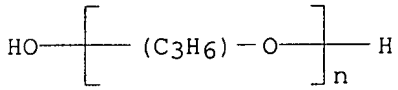
CRN 79-41-4
CMF C4 H6 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



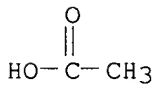
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 25395-31-7 HCAPLUS
CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

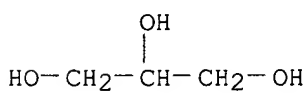
CM 1

CRN 64-19-7
CMF C2 H4 O2

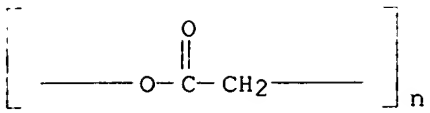


CM 2

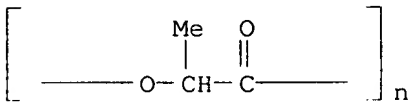
CRN 56-81-5
CMF C3 H8 O3



RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



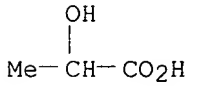
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

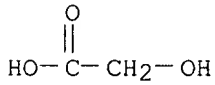
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

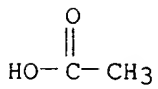
CRN 79-14-1
CMF C2 H4 O3



RN 26446-35-5 HCAPLUS
CN 1,2,3-Propanetriol, monoacetate (9CI) (CA INDEX NAME)

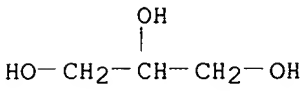
CM 1

CRN 64-19-7
CMF C2 H4 O2



CM 2

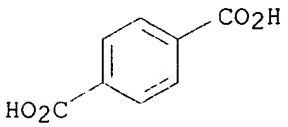
CRN 56-81-5
CMF C3 H8 O3



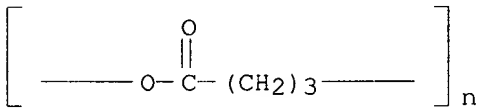
RN 26876-05-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 100-21-0
CMF C8 H6 O4



RN 28728-97-4 HCAPLUS
CN Poly[oxy(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)

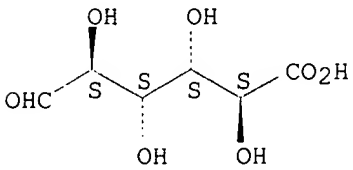


RN 29894-36-8 HCAPLUS
CN Mannuronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 6814-36-4
CMF C6 H10 O7

Relative stereochemistry.

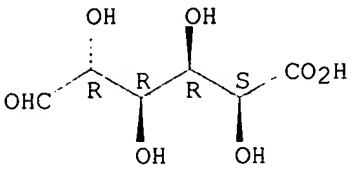


RN 36562-70-6 HCAPLUS
CN Guluronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15769-56-9
CMF C6 H10 O7

Relative stereochemistry.

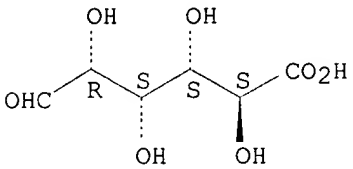


RN 36655-86-4 HCAPLUS
CN D-Glucuronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 6556-12-3
CMF C6 H10 O7

Absolute stereochemistry.



RN 50851-57-5 HCAPLUS
CN Benzenesulfonic acid, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 26914-43-2
CMF C8 H8 O3 S
CCI IDS

D1—CH=CH$_2$

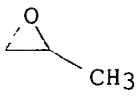
D1—SO$_3$H

RN 83512-85-0 HCAPLUS
CN Chitosan, N-(carboxymethyl) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 106392-12-5 HCAPLUS
CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O



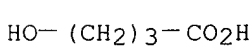
CM 2

CRN 75-21-8
CMF C2 H4 O

RN 114959-05-6 HCAPLUS
CN Butanoic acid, 4-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 591-81-1
CMF C4 H8 O3



RN 139639-23-9 HCAPLUS
CN Plasminogen activator, tissue-type (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM A61K031-74
ICS A61K038-46; A61K038-48; A61K009-70; A61K009-14; A61K038-00; A61K047-30; A61K047-32; A61K047-34; A61K047-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
ST hemostatic **polyacid** polyoxyalkylene
IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Joint, anatomical
(artificial; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Drug delivery systems
(bioadhesive; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carboxy group-contg.; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Gallbladder

Surgery
(cholecystectomy; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Uterus
(endometrium, surgery of; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Collagens, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fibrillar; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Drug delivery systems
(foams; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Drug delivery systems
(gels; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT **Adhesion**, biological
Adrenoceptor agonists
Analgesics
Anesthetics
Anti-inflammatory agents
Anticoagulants
Autoclaves
Gamma ray sterilization
Hemostatics
Molecular weight distribution
Plasticizers
Platelet (blood)
Prosthetic materials and Prosthetics
Sterilization and Disinfection
Surgery
Vasoconstrictors
Viscosity
(hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Chemotactic factors
Cytokines
Hormones, animal, biological studies
Peptides, biological studies
Polyanhydrides
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polyphosphoric acids
Proteins, general, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Musculoskeletal diseases
(hernia, surgery of; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Surgery
Uterus
(hysterectomy; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactic acid-based; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Anti-inflammatory agents
(nonsteroidal; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Surgery

(orthopedic; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Growth factors, animal
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(osteogenins; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Pancreas
Surgery
(pancreatectomy; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Kidney
(pelvis, surgery of; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Surgery
(plastic; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Polyamides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(amino acids); hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Uronic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyuronic acids; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Medical goods
(sponges; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Drug delivery systems
(sprays; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Appendix
Bladder
Ear
Glaucoma (disease)
Kidney
Nerve
Ovary
Prostate gland
Spinal column
Tendon
Urethra
(surgery of; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Surgery
Synovial membrane
(synovectomy; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT Heart
(valve, artificial; hemostatic compns. of **polyacids** and polyalkylene oxides)
IT **75-21-8**, Ethylene oxide, biological studies **106-69-4**, 1,2,6-Hexanetriol
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hemostatic compns. of **polyacids** and polyalkylene oxides)
IT **50-78-2**, Aspirin **51-41-2**, Norepinephrine **51-43-4**, Epinephrine **51-61-6**, Dopamine, biological studies **54-49-9**, Metaraminol **56-81-5**, Glycerol, biological studies **57-55-6**, Propylene glycol, biological studies **77-99-6**, Trimethylolpropane **101-40-6**, Propylhexedrine

102-76-1, Triacetin **107-21-1**, Ethylene glycol, biological studies **111-29-5**, 1,5-Pentanediol **299-42-3**, Ephedrine **390-28-3**, Methoxamine **1398-61-4**, Chitin **7429-90-5**, Aluminum, biological studies **7439-89-6**, Iron, biological studies **7439-95-4**, Magnesium, biological studies **7439-96-5**, Manganese, biological studies **7440-47-3**, Chromium, biological studies **7440-66-6**, Zinc, biological studies **7440-70-2**, Calcium, biological studies **9000-69-5**, Pectin **9002-04-4**, Thrombin **9003-01-4**, Polyacrylic acid **9004-32-4**, Carboxymethyl cellulose **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-32-7**, Alginic acid **9005-37-2**, Propylene glycol Alginate **9005-49-6**, Heparin, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **9050-30-0**, Heparan sulfate **14838-15-4**, Phenylpropanolamine **15687-27-1**, Ibuprofen **22071-15-4**, Ketoprofen **25087-26-7**, Polymethacrylic acid **25322-68-3** , Polyethylene glycol **25322-69-4**, Polypropylene glycol **25395-31-7**, Diacetin **26009-03-0**, Polyglycolic acid, SRU **26023-30-3**, Poly(lactic acid), SRU **26100-51-6**, Poly(lactic acid) **26124-68-5**, Polyglycolic acid **26446-35-5**, Monoacetin **26876-05-1**, Poly(terephthalic acid) **28728-97-4**, Poly(4-hydroxybutyric acid), sru **29894-36-8**, Polymannuronic acid **36562-70-6**, Polyguluronic acid **36655-86-4**, Polyglucuronic acid **50851-57-5**, Polystyrenesulfonic acid **83512-85-0**, Carboxymethyl chitosan **106392-12-5**, Polyethylene glycol-Polypropylene glycol block copolymer **114959-05-6**, Poly(4-hydroxybutyric acid) **139639-23-9**, Tissue plasminogen activator

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic compns. of **polyacids** and polyalkylene oxides)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:816395 HCAPLUS
DOCUMENT NUMBER: 135:362559
TITLE: **Polyacid**/polyalkylene oxide foams and gels for drug delivery
INVENTOR(S): Miller, Mark E.; **Cortese, Stephanie M.**; **Schwartz, Herbert E.**; **Oppelt, William G.**
PATENT ASSIGNEE(S): Fziomed, Inc., USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001082863	A2	20011108	WO 2001-US13505	20010426
WO 2001082863	A3	20020221		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,

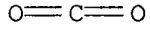
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001059177	A5	20011112	AU 2001-59177		20010426
US 2002010150	A1	20020124	US 2001-843588		20010426
US 2002028181	A1	20020307	US 2001-843194		20010426
PRIORITY APPLN. INFO.:			US 2000-200457P	P	20000428
			US 2000-200637P	P	20000428
			US 1999-472110	A	19991227
			WO 2001-US13505	W	20010426

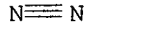
AB The present invention relates to improved methods for delivering bioadhesive, bioresorbable, anti-**adhesion** compns. Antiadhesion compns. can be made of intermacromol. complexes of carboxyl-contg. polysaccharides, **polyethers**, **polyacids**, polyalkylene oxides, multivalent cations and/or polycations. The polymers are assocd. with each other, and are then used as fluids, gels or foams. By providing a product bag, the compns. can be delivered as gels or as sprays. By dissolving propellant gases in the compns., the materials can be delivered as foams, which have decreased d., and therefore can adhere to surfaces that previously have been difficult to coat with antiadhesion gels. Delivery systems can also provide mechanisms for expelling more product, and for directing the flow of materials leaving the delivery system. Bioresorbable, bioadhesive, anti-**adhesion**, and/or hemostatic compns. are useful in surgery to prevent the formation and reformation of post-surgical **adhesions**. The biol. and phys. properties of such compns. can be varied as needed by carefully adjusting the pH and/or cation content of the polymer casting solns., **polyacid** compn., the polyalkylene oxide compn., or by selecting the solids content of the compn. Antiadhesion compns. may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally. An antiadhesion compn. comprising a gel was loaded into a CCL ABS canister with a liner. The compn. comprised 2.2% total solids with a ratio of CMC to PEG of 97.5:2.5, and included sufficient Ca to provide a 60% ionically assocd. complex. Portions of the compn. were sterilized in an autoclave at a temp. of 122.degree. for 35 min.

IT **124-38-9**, Carbon dioxide, biological studies **7727-37-9**, Nitrogen, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)

RN 124-38-9 HCAPLUS
CN Carbon dioxide (8CI, 9CI) (CA INDEX NAME)



RN 7727-37-9 HCAPLUS
CN Nitrogen (8CI, 9CI) (CA INDEX NAME)

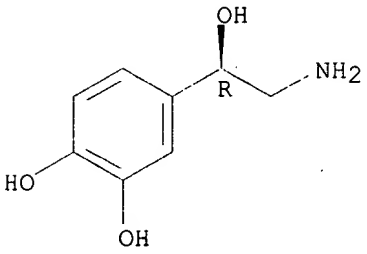


IT **51-41-2**, Norepinephrine **51-43-4**, Epinephrine **51-61-6**, Dopamine, biological studies **54-49-9**, Metaraminol **56-81-5**, Glycerol, biological studies **57-55-6**, Propylene glycol, biological studies **77-99-6**,

Trimethylolpropane **101-40-6**, Propylhexedrine **102-76-1**, Triacetin **106-69-4**, 1,2,6-Hexanetriol **107-21-1**, Ethylene glycol, biological studies **111-29-5**, 1,5-Pentanediol **299-42-3**, Ephedrine **390-28-3**, Methoxamine **1398-61-4**, Chitin **7429-90-5**, Aluminum, biological studies **7439-89-6**, Iron, biological studies **7439-95-4**, Magnesium, biological studies **7439-96-5**, Manganese, biological studies **7440-47-3**, Chromium, biological studies **7440-66-6**, Zinc, biological studies **7440-70-2**, Calcium, biological studies **9000-69-5**, Pectin **9002-04-4**, Thrombin **9003-01-4**, Polyacrylic acid **9004-32-4**, Carboxymethyl cellulose **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-32-7**, Alginic acid **9005-37-2**, Propylene glycol Alginate **9005-49-6**, Heparin, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **9050-30-0**, Heparan sulfate **14838-15-4**, Phenylpropanolamine **25087-26-7**, Polymethacrylic acid **25322-68-3**, Polyethylene glycol **25322-69-4**, Polypropylene glycol **25395-31-7**, Diacetin **26009-03-0**, Polyglycolic acid **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6**, Poly(lactic acid) **26124-68-5**, Polyglycolic acid **26446-35-5**, Monoacetin **26876-05-1**, Poly(terephthalic acid) **28728-97-4**, Poly(4-hydroxybutyric acid), sru **29894-36-8**, Polymannuronic acid **36562-70-6**, Polyguluronic acid **36655-86-4**, Polyglucuronic acid **50851-57-5**, Polystyrenesulfonic acid **83512-85-0**, Carboxymethyl chitosan **106392-12-5**, Polyethylene glycol-Polypropylene glycol block copolymer **114959-05-6**, Poly(4-hydroxybutyric acid)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)

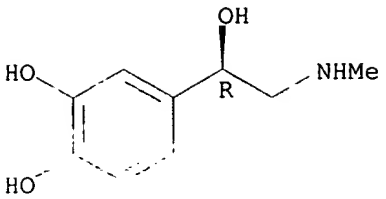
RN 51-41-2 HCAPLUS
CN 1,2-Benzenediol, 4-[(1R)-2-amino-1-hydroxyethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

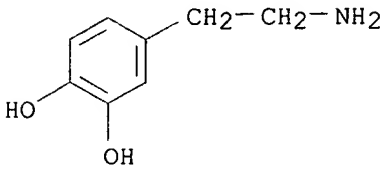


RN 51-43-4 HCAPLUS
CN 1,2-Benzenediol, 4-[(1R)-1-hydroxy-2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

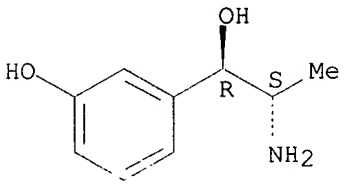


RN 51-61-6 HCAPLUS
CN 1,2-Benzenediol, 4-(2-aminoethyl)- (9CI) (CA INDEX NAME)

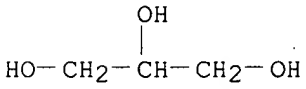


RN 54-49-9 HCAPLUS
CN Benzenemethanol, .alpha.-[(1S)-1-aminoethyl]-3-hydroxy-, (.alpha.R)- (9CI) (CA INDEX NAME)

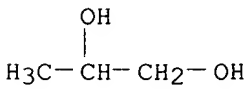
Absolute stereochemistry. Rotation (-).



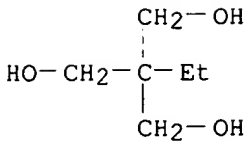
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



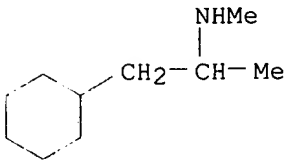
RN 57-55-6 HCAPLUS
CN 1,2-Propanediol (8CI, 9CI) (CA INDEX NAME)



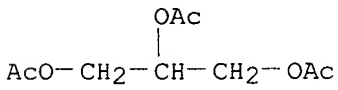
RN 77-99-6 HCAPLUS
CN 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)- (8CI, 9CI) (CA INDEX NAME)



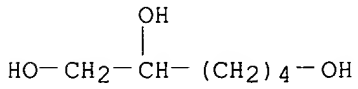
RN 101-40-6 HCAPLUS
CN Cyclohexaneethanamine, N,.alpha.-dimethyl- (9CI) (CA INDEX NAME)



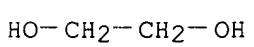
RN 102-76-1 HCAPLUS
CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



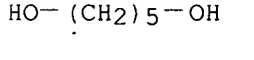
RN 106-69-4 HCAPLUS
CN 1,2,6-Hexanetriol (8CI, 9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

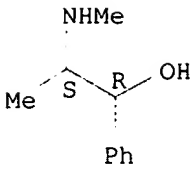


RN 111-29-5 HCAPLUS
CN 1,5-Pentanediol (8CI, 9CI) (CA INDEX NAME)

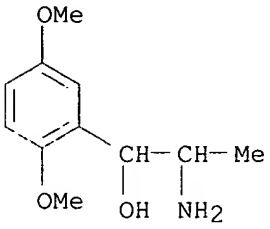


RN 299-42-3 HCAPLUS
CN Benzenemethanol, .alpha.-[(1S)-1-(methylamino)ethyl]-, (.alpha.R)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 390-28-3 HCAPLUS
CN Benzenemethanol, .alpha.-(1-aminoethyl)-2,5-dimethoxy- (9CI) (CA INDEX NAME)



RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 7429-90-5 HCAPLUS
CN Aluminum (8CI, 9CI) (CA INDEX NAME)

Al

RN 7439-89-6 HCAPLUS
CN Iron (7CI, 8CI, 9CI) (CA INDEX NAME)

Fe

RN 7439-95-4 HCAPLUS
CN Magnesium (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7439-96-5 HCAPLUS
CN Manganese (8CI, 9CI) (CA INDEX NAME)

Mn

RN 7440-47-3 HCAPLUS
CN Chromium (8CI, 9CI) (CA INDEX NAME)

Cr

RN 7440-66-6 HCAPLUS
CN Zinc (7CI, 8CI, 9CI) (CA INDEX NAME)

Zn

RN 7440-70-2 HCAPLUS
CN Calcium (8CI, 9CI) (CA INDEX NAME)

Ca

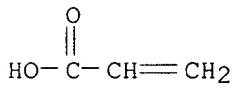
RN 9000-69-5 HCAPLUS
CN Pectin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9002-04-4 HCAPLUS
CN Thrombin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

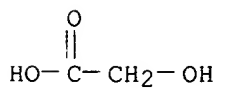
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-42-6 HCAPLUS
CN Cellulose, 2-carboxyethyl ether (9CI) (CA INDEX NAME)

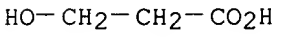
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 503-66-2
CMF C3 H6 O3



RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-37-2 HCAPLUS
CN Alginic acid, ester with 1,2-propanediol (8CI, 9CI) (CA INDEX NAME)

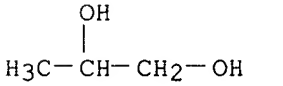
CM 1

CRN 9005-32-7
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

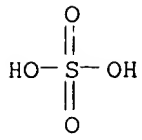
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9044-05-7 HCAPLUS
CN Dextran, carboxymethyl ether (9CI) (CA INDEX NAME)

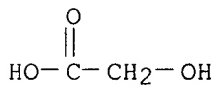
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9050-30-0 HCAPLUS
CN Heparan, sulfate (9CI) (CA INDEX NAME)

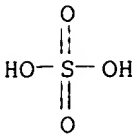
CM 1

CRN 70226-44-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

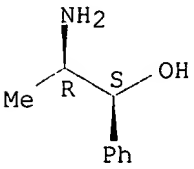
CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 14838-15-4 HCAPLUS
CN Benzenemethanol, .alpha.-[(1R)-1-aminoethyl]-, (.alpha.S)-rel- (9CI) (CA INDEX NAME)

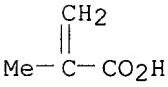
Relative stereochemistry.



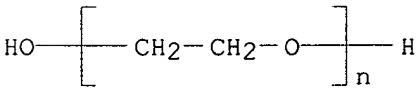
RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

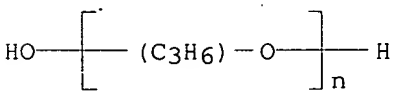
CRN 79-41-4
CMF C4 H6 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



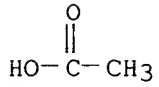
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 25395-31-7 HCAPLUS
CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

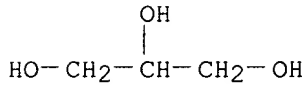
CM 1

CRN 64-19-7
CMF C2 H4 O2

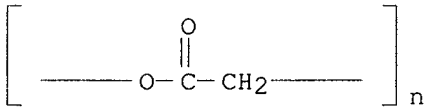


CM 2

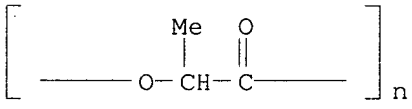
CRN 56-81-5
CMF C3 H8 O3



RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



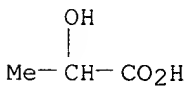
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

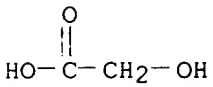
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

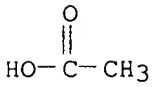
CRN 79-14-1
CMF C2 H4 O3



RN 26446-35-5 HCAPLUS
CN 1,2,3-Propanetriol, monoacetate (9CI) (CA INDEX NAME)

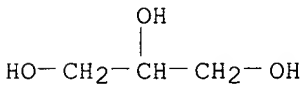
CM 1

CRN 64-19-7
CMF C2 H4 O2



CM 2

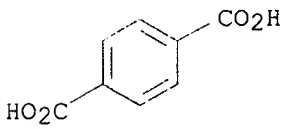
CRN 56-81-5
CMF C3 H8 O3



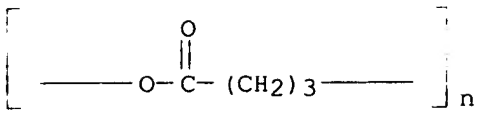
RN 26876-05-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 100-21-0
CMF C8 H6 O4



RN 28728-97-4 HCAPLUS
CN Poly[oxy(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)

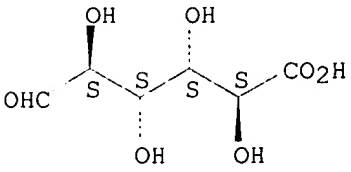


RN 29894-36-8 HCAPLUS
CN Mannuronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 6814-36-4
CMF C6 H10 O7

Relative stereochemistry.

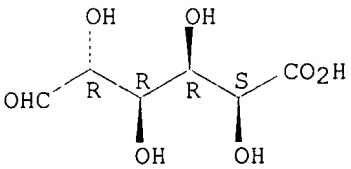


RN 36562-70-6 HCAPLUS
CN Guluronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15769-56-9
CMF C6 H10 O7

Relative stereochemistry.

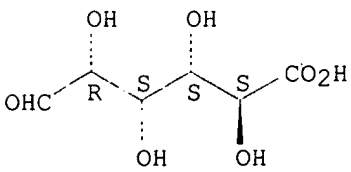


RN 36655-86-4 HCAPLUS
CN D-Glucuronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 6556-12-3
CMF C6 H10 O7

Absolute stereochemistry.



RN 50851-57-5 HCAPLUS
CN Benzenesulfonic acid, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 26914-43-2
CMF C8 H8 O3 S
CCI IDS

D1—CH=CH2

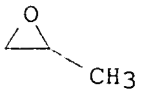
D1—SO3H

RN 83512-85-0 HCAPLUS
CN Chitosan, N-(carboxymethyl) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 106392-12-5 HCAPLUS
CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O



CM 2

CRN 75-21-8
CMF C2 H4 O

RN 114959-05-6 HCAPLUS
CN Butanoic acid, 4-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 591-81-1
CMF C4 H8 O3

HO-(CH2)3-CO2H

IC ICM A61K
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
ST **polyacid** polyoxyalkylene foam drug delivery; gel drug delivery
polyacid polyoxyalkylene
IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Joint, anatomical
(artificial; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Drug delivery systems
(bioadhesive; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carboxy group-contg.; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Gallbladder
Surgery
(cholecystectomy; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Uterus
(endometrium, surgery of; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Collagens, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fibrillar; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Hydrocarbons, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(fluoro; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Drug delivery systems
(foams; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Drug delivery systems
(gels; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Musculoskeletal diseases
(hernia, surgery of; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Surgery
Uterus
(hysterectomy; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Polyesters, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactic acid-based; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Surgery
(orthopedic; **polyacid**/polyalkylene oxide foams and gels for drug delivery)

IT Growth factors, animal
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(osteogenins; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Pancreas
Surgery
(pancreatectomy; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Kidney
(pelvis, surgery of; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Surgery
(plastic; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Polyamides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(amino acids); **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT **Adhesion**, biological
Analgesics
Anesthetics
Anti-inflammatory agents
Anticoagulants
Autoclaves
Hemostatics
Medical goods
Molecular weight distribution
Plasticizers
Prosthetic materials and Prosthetics
Sterilization and Disinfection
Surgery
Viscosity
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Hydrocarbons, biological studies
Noble gases, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Chemotactic factors
Cytokines
Growth factors, animal
Hormones, animal, biological studies
Polyanhydrides
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polyphosphoric acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Uronic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyuronic acids; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Drug delivery systems
(sprays; **polyacid**/polyalkylene oxide foams and gels for drug delivery)
IT Appendix
Bladder

Ear
Glaucoma (disease)
Kidney
Nerve
Ovary
Prostate gland
Spinal column
Tendon
Urethra
(surgery of; **polyacid**/polyalkylene oxide foams and gels for drug delivery)

IT Surgery
Synovial membrane
(synovectomy; **polyacid**/polyalkylene oxide foams and gels for drug delivery)

IT Heart
(valve, artificial; **polyacid**/polyalkylene oxide foams and gels for drug delivery)

IT **124-38-9**, Carbon dioxide, biological studies **7727-37-9**, Nitrogen, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)

IT **51-41-2**, Norepinephrine **51-43-4**, Epinephrine **51-61-6**, Dopamine, biological studies **54-49-9**, Metaraminol **56-81-5**, Glycerol, biological studies **57-55-6**, Propylene glycol, biological studies **77-99-6**, Trimethylolpropane **101-40-6**, Propylhexedrine **102-76-1**, Triacetin **106-69-4**, 1,2,6-Hexanetriol **107-21-1**, Ethylene glycol, biological studies **111-29-5**, 1,5-Pentanediol **299-42-3**, Ephedrine **390-28-3**, Methoxamine **1398-61-4**, Chitin **7429-90-5**, Aluminum, biological studies **7439-89-6**, Iron, biological studies **7439-95-4**, Magnesium, biological studies **7439-96-5**, Manganese, biological studies **7440-47-3**, Chromium, biological studies **7440-66-6**, Zinc, biological studies **7440-70-2**, Calcium, biological studies **9000-69-5**, Pectin **9002-04-4**, Thrombin **9003-01-4**, Polyacrylic acid **9004-32-4**, Carboxymethyl cellulose **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-32-7**, Alginic acid **9005-37-2**, Propylene glycol Alginate **9005-49-6**, Heparin, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **9050-30-0**, Heparan sulfate **14838-15-4**, Phenylpropanolamine **25087-26-7**, Polymethacrylic acid **25322-68-3**, Polyethylene glycol **25322-69-4**, Polypropylene glycol **25395-31-7**, Diacetin **26009-03-0**, Polyglycolic acid **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6**, Poly(lactic acid) **26124-68-5**, Polyglycolic acid **26446-35-5**, Monoacetin **26876-05-1**, Poly(terephthalic acid) **28728-97-4**, Poly(4-hydroxybutyric acid), sru **29894-36-8**, Polymannuronic acid **36562-70-6**, Polyguluronic acid **36655-86-4**, Polyglucuronic acid **50851-57-5**, Polystyrenesulfonic acid **83512-85-0**, Carboxymethyl chitosan **106392-12-5**, Polyethylene glycol-Polypropylene glycol block copolymer **114959-05-6**, Poly(4-hydroxybutyric acid)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**polyacid**/polyalkylene oxide foams and gels for drug delivery)

L12 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:725477 HCAPLUS
DOCUMENT NUMBER: 133:286502
TITLE: Compositions of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**
INVENTOR(S): **Schwartz, Herbert E.; Blackmore, John M.; Cortese, Stephanie M.; Oppelt, William G.**
PATENT ASSIGNEE(S): Fziomed, Inc., USA
SOURCE: PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000059516	A1	20001012	WO 2000-US7963	20000323
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1181023	A1	20020227	EP 2000-921450	20000323
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002010150	A1	20020124	US 2001-843588	20010426

PRIORITY APPLN. INFO.:

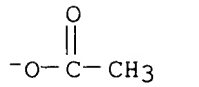
US 1999-127571P	P	19990402
US 1999-472110	A	19991227
WO 2000-US7963	W	20000323
US 2000-200457P	P	20000428
US 2000-200637P	P	20000428

AB The present invention relates to improved methods for making and using bioadhesive, bioresorbable, anti-**adhesion** compns. made of intermacromol. complexes of carboxyl-contg. polysaccharides, **polyethers**, **polyacids**, polyalkylene oxides, multivalent cations and/or polycations. The polymers are assocd. with each other, and are then either dried into membranes or sponges, or are used as fluids or microspheres. Bioresorbable, bioadhesive, anti-**adhesion** compns. are useful in surgery to prevent the formation and reformation of post-surgical **adhesions**. The compns. are designed to breakdown in-vivo , and thus be removed from the body. Membranes are inserted during surgery either dry or optionally after conditioning in aq. solns. The anti-**adhesion**, bioadhesive, bioresorptive, antithrombogenic and phys. properties of such membranes and gels can be varied as needed by carefully adjusting the pH and/or cation content of the polymer casting solns., **polyacid** compn., the polyalkylene oxide compn., or by conditioning the membranes prior to surgical use. Multi-layered membranes can be made and used to provide further control over the phys. and biol. properties of antiadhesion membranes. Membranes and gels can be used concurrently. Antiadhesion compns. may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally. An examples was given for prepn. of a neutral

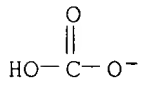
CM-cellulose-PEG membrane.

IT **71-50-1**, Acetate, biological studies **71-52-3**, Bicarbonate, biological studies **126-44-3**, Citrate, biological studies **338-70-5**, biological studies **3812-32-6**, Carbonate, biological studies **11129-12-7**, Borate **14066-19-4**, Hydrogen phosphate, biological studies **14127-61-8**, Calcium ion, biological studies **14265-44-2**, Phosphate, biological studies **14808-79-8**, Sulfate, biological studies **16065-83-1**, Chromium ion (Cr3+), biological studies **16397-91-4**, Manganese ion (Mn2+), biological studies **16887-00-6**, Chloride, biological studies **20074-52-6**, Ferric ion, biological studies **22537-22-0**, Magnesium ion, biological studies **22537-23-1**, Aluminum ion, biological studies **23713-49-7**, Zinc ion, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)

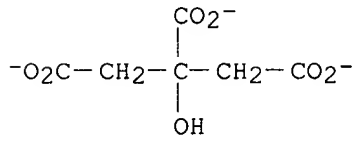
RN 71-50-1 HCAPLUS
CN Acetic acid, ion(1-) (8CI, 9CI) (CA INDEX NAME)



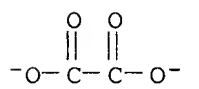
RN 71-52-3 HCAPLUS
CN Carbonate, hydrogen (8CI, 9CI) (CA INDEX NAME)



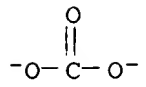
RN 126-44-3 HCAPLUS
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, ion(3-) (9CI) (CA INDEX NAME)



RN 338-70-5 HCAPLUS
CN Ethanedioic acid, ion(2-) (9CI) (CA INDEX NAME)

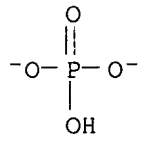


RN 3812-32-6 HCAPLUS
CN Carbonate (8CI, 9CI) (CA INDEX NAME)



RN 11129-12-7 HCAPLUS
CN Borate (9CI) (CA INDEX NAME)

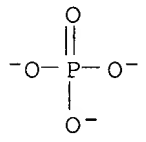
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 14066-19-4 HCAPLUS
CN Phosphate, hydrogen (8CI, 9CI) (CA INDEX NAME)



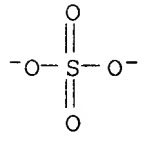
RN 14127-61-8 HCAPLUS
CN Calcium, ion (Ca2+) (8CI, 9CI) (CA INDEX NAME)

Ca^{2+}

RN 14265-44-2 HCAPLUS
CN Phosphate (8CI, 9CI) (CA INDEX NAME)



RN 14808-79-8 HCAPLUS
CN Sulfate (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 16065-83-1 HCAPLUS
CN Chromium, ion (Cr3+) (8CI, 9CI) (CA INDEX NAME)

Cr^{3+}

RN 16397-91-4 HCAPLUS
CN Manganese, ion (Mn2+) (8CI, 9CI) (CA INDEX NAME)

Mn^{2+}

RN 16887-00-6 HCAPLUS
CN Chloride (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

Cl^-

RN 20074-52-6 HCAPLUS
CN Iron, ion (Fe3+) (8CI, 9CI) (CA INDEX NAME)

Fe^{3+}

RN 22537-22-0 HCAPLUS
CN Magnesium, ion (Mg2+) (8CI, 9CI) (CA INDEX NAME)

Mg^{2+}

RN 22537-23-1 HCAPLUS
CN Aluminum, ion (Al3+) (8CI, 9CI) (CA INDEX NAME)

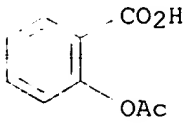
Al^{3+}

RN 23713-49-7 HCAPLUS
CN Zinc, ion (Zn2+) (8CI, 9CI) (CA INDEX NAME)

Zn^{2+}

IT **50-78-2**, Aspirin **1398-61-4**, Chitin **9000-69-5**, Pectin **9003-01-4**, Polyacrylic acid **9004-32-4** **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-32-7**, Alginic acid **9005-37-2**, Propylene glycol alginate **9005-49-6**, Heparin, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **15687-27-1**, Ibuprofen **22071-15-4**, Ketoprofen **25087-26-7**, Polymethacrylic acid **25322-68-3**, Peg **25322-69-4**, Polypropylene glycol **26009-03-0**, Polyglycolic acid **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6**, Polylactic acid **26124-68-5**, Polyglycolic acid **26876-05-1**, Polyterephthalic acid **28728-97-4**, Polyhydroxybutyric acid sru **29894-36-8**, Polymannuronic acid **36562-70-6**, Polyguluronic acid **36655-86-4**, Polyglucuronic acid **50851-57-5**, Polystyrenesulfonic acid **52352-27-9**, Polyhydroxybutyric acid **52519-63-8**, Carboxymethyl chitin **83512-85-0**, Carboxymethyl chitosan **106392-12-5**, Oxirane, polymer with methyloxirane, block **139639-23-9**, Tissue plasminogen activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of **polyacids** and **polyethers** and methods

for their use in reducing **adhesions**)
RN 50-78-2 HCAPLUS
CN Benzoic acid, 2-(acetyloxy)- (9CI) (CA INDEX NAME)



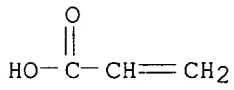
RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9000-69-5 HCAPLUS
CN Pectin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

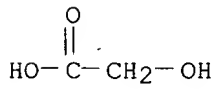
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-42-6 HCAPLUS
CN Cellulose, 2-carboxyethyl ether (9CI) (CA INDEX NAME)

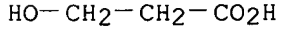
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 503-66-2
CMF C3 H6 O3



RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-37-2 HCAPLUS
CN Alginic acid, ester with 1,2-propanediol (8CI, 9CI) (CA INDEX NAME)

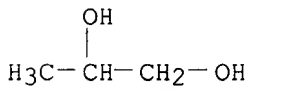
CM 1

CRN 9005-32-7
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

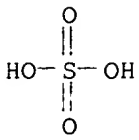
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9044-05-7 HCAPLUS
CN Dextran, carboxymethyl ether (9CI) (CA INDEX NAME)

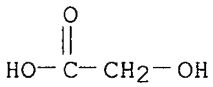
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

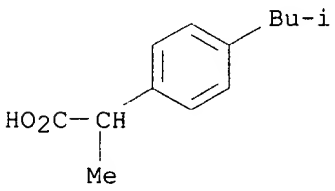
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

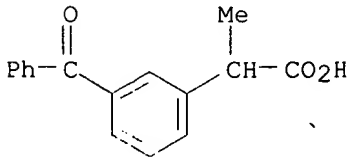
CRN 79-14-1
CMF C2 H4 O3



RN 15687-27-1 HCAPLUS
CN Benzeneacetic acid, .alpha.-methyl-4-(2-methylpropyl)- (9CI) (CA INDEX NAME)



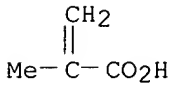
RN 22071-15-4 HCAPLUS
CN Benzeneacetic acid, 3-benzoyl-.alpha.-methyl- (9CI) (CA INDEX NAME)



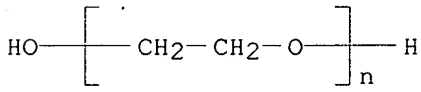
RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

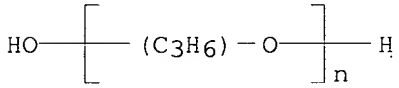
CRN 79-41-4
CMF C4 H6 O2



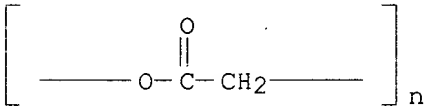
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



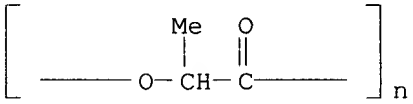
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 26009-03-0 HCAPLUS
CN Poly[oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



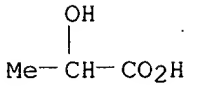
RN 26023-30-3 HCAPLUS
CN Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] (8CI, 9CI) (CA INDEX NAME)



RN 26100-51-6 HCAPLUS
CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

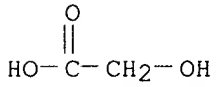
CRN 50-21-5
CMF C3 H6 O3



RN 26124-68-5 HCAPLUS
CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

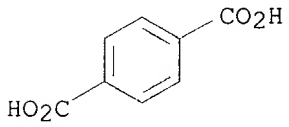
CRN 79-14-1
CMF C2 H4 O3



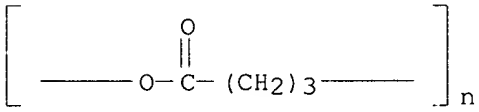
RN 26876-05-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 100-21-0
CMF C8 H6 O4



RN 28728-97-4 HCAPLUS
CN Poly[oxy(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)

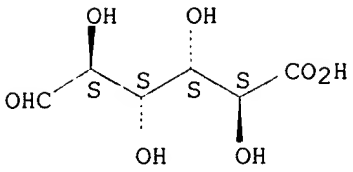


RN 29894-36-8 HCAPLUS
CN Mannuronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 6814-36-4
CMF C6 H10 O7

Relative stereochemistry.

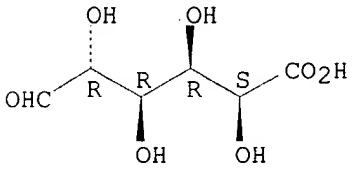


RN 36562-70-6 HCAPLUS
CN Guluronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15769-56-9
CMF C6 H10 O7

Relative stereochemistry.

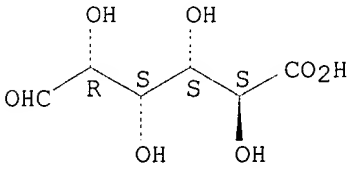


RN 36655-86-4 HCAPLUS
CN D-Glucuronic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 6556-12-3
CMF C6 H10 O7

Absolute stereochemistry.



RN 50851-57-5 HCAPLUS
CN Benzenesulfonic acid, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 26914-43-2
CMF C8 H8 O3 S
CCI IDS

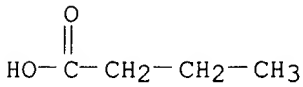
D1—CH═CH$_2$

D1—SO$_3$H

RN 52352-27-9 HCAPLUS
CN Butanoic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 35054-79-6
CMF C4 H8 O3
CCI IDS



D1—OH

RN 52519-63-8 HCAPLUS
CN Chitin, carboxymethyl ether (9CI) (CA INDEX NAME)

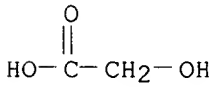
CM 1

CRN 1398-61-4
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 83512-85-0 HCAPLUS
CN Chitosan, N-(carboxymethyl) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 106392-12-5 HCAPLUS

CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O

CM 2

CRN 75-21-8
CMF C2 H4 O

RN 139639-23-9 HCAPLUS
CN Plasminogen activator, tissue-type (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM A61K031-715
ICS A61K047-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
ST biol **adhesion** inhibitor **polyacid polyether**
IT Polymers, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carboxy-contg.; compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)
IT **Adhesion**, biological
Cations
(compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)
IT **Polyethers**, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)
IT Peptides, biological studies
Polyoxyalkylenes, biological studies
Polyphosphoric acids
Proteins, general, biological studies
RGD peptides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)
IT Drug delivery systems
(gels; compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)
IT **71-50-1**, Acetate, biological studies **71-52-3**, Bicarbonate, biological studies **126-44-3**, Citrate, biological

studies **338-70-5**, biological studies **3812-32-6**, Carbonate, biological studies **11129-12-7**, Borate **14066-19-4**, Hydrogen phosphate, biological studies **14127-61-8**, Calcium ion, biological studies **14265-44-2**, Phosphate, biological studies **14808-79-8**, Sulfate, biological studies **16065-83-1**, Chromium ion (Cr3+), biological studies **16397-91-4**, Manganese ion (Mn2+), biological studies **16887-00-6**, Chloride, biological studies **20074-52-6**, Ferric ion, biological studies **22537-22-0**, Magnesium ion, biological studies **22537-23-1**, Aluminum ion, biological studies **23713-49-7**, Zinc ion, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)

IT **50-78-2**, Aspirin **1398-61-4**, Chitin **9000-69-5**, Pectin **9003-01-4**, Polyacrylic acid **9004-32-4** **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-32-7**, Alginic acid **9005-37-2**, Propylene glycol alginate **9005-49-6**, Heparin, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **15687-27-1**, Ibuprofen **22071-15-4**, Ketoprofen **25087-26-7**, Polymethacrylic acid **25322-68-3**, Peg **25322-69-4**, Polypropylene glycol **26009-03-0**, Polyglycolic acid **26023-30-3**, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] **26100-51-6**, Polylactic acid **26124-68-5**, Polyglycolic acid **26876-05-1**, Polyterephthalic acid **28728-97-4**, Polyhydroxybutyric acid sru **29894-36-8**, Polymannuronic acid **36562-70-6**, Polyguluronic acid **36655-86-4**, Polyglucuronic acid **50851-57-5**, Polystyrenesulfonic acid **52352-27-9**, Polyhydroxybutyric acid **52519-63-8**, Carboxymethyl chitin **83512-85-0**, Carboxymethyl chitosan **106392-12-5**, Oxirane, polymer with methyloxirane, block **139639-23-9**, Tissue plasminogen activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of **polyacids** and **polyethers** and methods for their use in reducing **adhesions**)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:9887 HCAPLUS
DOCUMENT NUMBER: 130:71612
TITLE: Bioresorbable antiadhesion of carboxypolysaccharide **polyether** intermacromolecular complexes and methods for their use in reducing surgical **adhesions**
INVENTOR(S): **Schwartz, Herbert E.; Blackmore, John M.**
PATENT ASSIGNEE(S): Fziomed, Inc., USA
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858011	A1	19981223	WO 1998-US10814	19980528

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5906997	A	19990525	US 1997-877649	19970617
US 6017301	A	20000125	US 1998-23267	19980213
US 6034140	A	20000307	US 1998-23097	19980213
AU 9876985	A1	19990104	AU 1998-76985	19980528
EP 1002002	A1	20000524	EP 1998-924928	19980528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002511897	T2	20020416	JP 1999-504437	19980528
US 6133325	A	20001017	US 1999-252147	19990218

PRIORITY APPLN. INFO.: US 1997-877649 A 19970617
WO 1998-US10814 W 19980528

AB The present invention relates to improved methods for making and using bioadhesive, bioresorbable, antiadhesion compns. made of intermacromol. complexes of carboxyl-contg. polysaccharides and **polyethers**, and to the resulting compns. The polymers are assocd. with each other, and are then either dried or are used as fluids. Bioresorbable, bioadhesive, antiadhesion compns. are useful in surgery to prevent the formation of post-surgical **adhesions**. The compns. are designed to breakdown in vivo, and thus be removed from the body. Membranes are inserted during surgery either dry or optionally after conditioning in aq. solns. The antiadhesion, bioadhesive, bioresorptive, antithrombogenic and phys. properties of such membranes can be varied as needed by carefully adjusting the pH of the polymer casting solns., polysaccharide compn., the **polyether** compn., or by conditioning the membranes prior to surgical use. Bi- or multi-layered membranes can be made and used to provide further control over the phys. and biol. properties of antiadhesion membranes. Antiadhesion compns. may also be used to deliver drugs to the surgical site and release them locally.

IT **1398-61-4**, Chitin **9000-69-5**, Pectin **9004-32-4**, Sodium CMC **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-25-8**, Starch, biological studies **9005-32-7**, Alginic acid **9005-49-6**, Heparin, biological studies **9005-79-2**, Glycogen, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **9050-30-0**, Heparan sulfate **25322-68-3**, Polyethylene oxide **83512-85-0**, Carboxymethyl chitosan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)

RN 1398-61-4 HCAPLUS
CN Chitin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9000-69-5 HCAPLUS
CN Pectin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

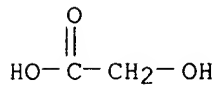
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-42-6 HCAPLUS
CN Cellulose, 2-carboxyethyl ether (9CI) (CA INDEX NAME)

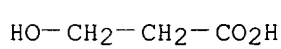
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 503-66-2
CMF C3 H6 O3



RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-25-8 HCAPLUS
CN Starch (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-49-6 HCAPLUS
CN Heparin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-79-2 HCAPLUS
CN Glycogen (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (9CI) (CA INDEX NAME)

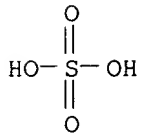
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9044-05-7 HCAPLUS
CN Dextran, carboxymethyl ether (9CI) (CA INDEX NAME)

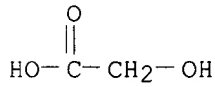
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9050-30-0 HCAPLUS
CN Heparan, sulfate (9CI) (CA INDEX NAME)

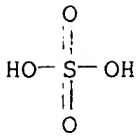
CM 1

CRN 70226-44-7
CMF Unspecified
CCI MAN

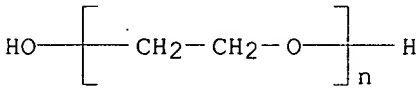
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 83512-85-0 HCAPLUS
CN Chitosan, N-(carboxymethyl) (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **7664-41-7**, Ammonia, uses
RL: NUU (Other use, unclassified); USES (Uses)
(membrane conditioning with; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
RN 7664-41-7 HCAPLUS
CN Ammonia (8CI, 9CI) (CA INDEX NAME)

NH_3

IC ICM C08G065-00
ICS C08L071-08
CC 63-7 (Pharmaceuticals)
ST polysaccharide **polyether** complex membrane bioadhesive; PEG CMC complex bioresorbable antiadhesion bioadhesive
IT Medical goods
(adhesives; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Medical goods
(antithrombogenic; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT **Adhesion**, biological
Analgesics
Anesthetics
Anti-inflammatory agents
Antibiotics
Hydrogels
Surgery
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Chemotactic factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Glycosaminoglycans, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether**

intermacromol. complexes)
IT Hormones, animal, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Polysaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carboxyl-contg.; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Prosthetic materials and Prosthetics
(implants; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Adhesives
(medical; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Buffers
(phosphate, membrane conditioning with; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Physiological saline solutions
(phosphate-buffered, membrane conditioning with; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT Osteoarthritis
(surgical procedures for treatment of; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT **1398-61-4**, Chitin **9000-69-5**, Pectin **9004-32-4**, Sodium CMC **9004-42-6**, Carboxyethyl cellulose **9004-61-9**, Hyaluronic acid **9005-25-8**, Starch, biological studies **9005-32-7**, Alginic acid **9005-49-6**, Heparin, biological studies **9005-79-2**, Glycogen, biological studies **9007-28-7**, Chondroitin sulfate **9044-05-7**, Carboxymethyl dextran **9050-30-0**, Heparan sulfate **25322-68-3**, Polyethylene oxide **83512-85-0**, Carboxymethyl chitosan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
IT **7664-41-7**, Ammonia, uses
RL: NUU (Other use, unclassified); USES (Uses)
(membrane conditioning with; bioresorbable adhesives contg. carboxypolysaccharide-**polyether** intermacromol. complexes)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:198205 HCAPLUS
DOCUMENT NUMBER: 118:198205
TITLE: Viscoelastic fluid for use in spine and neurosurgery
INVENTOR(S): Pennell, Phillip E.; **Blackmore, John M.**; Allen, Mark D.
PATENT ASSIGNEE(S): MDR Group Inc., USA
SOURCE: U.S., 11 pp. Cont.-in-part of U.S. 4,983,585.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5156839	A	19921020	US 1990-538232	19900614
AU 8817260	A1	19881206	AU 1988-17260	19880427
US 4983585	A	19910108	US 1988-266684	19881103
US 5068225	A	19911126	US 1990-565491	19900810

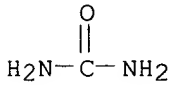
PRIORITY APPLN. INFO.: US 1987-45326 19870504
US 1988-266684 19881103
WO 1988-US1389 19880427
US 1988-266648 19881103

AB A method of preventing scar formation in sterile parts of the body during and following surgery comprises the step of delivering to a wound a viscoelastic fluid compn. having CM-cellulose (CMC) .ltoreq. 2.5 and polyethylene oxide (PEO) 0.5 % by wt. A viscoelastic fluid contg. CMC 2-3, and PEO 10-50 % was placed in a silicon shell and the shell was also coated with the fluid and then was implanted within the body. Following the implantation no **adhesion** or inflammation was obsd.

IT **1320-50-9**, Dimethyl urea
RL: BIOL (Biological study)
(viscoelastic compn. contg. CM-cellulose and polyoxyethylene and, for surgery)

RN 1320-50-9 HCAPLUS

CN Urea, dimethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

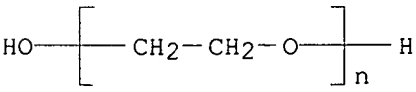


2 (D1—Me)

IT **25322-68-3**
RL: BIOL (Biological study)
(viscoelastic compn. contg. CM-cellulose and, for surgery)

RN 25322-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT **9004-32-4**, Carboxymethyl cellulose
RL: BIOL (Biological study)
(viscoelastic compn. contg. polyoxyethylene and, for surgery)

RN 9004-32-4 HCAPLUS

CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

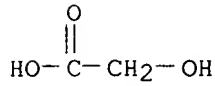
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



IC A61K031-74; A61K031-715; A61K047-00
NCL 424078370
CC 63-6 (Pharmaceuticals)
ST viscoelastic fluid surgery polyoxyethylene cellulose
IT Urethra
(introduction of instrument into, facilitation of, viscoelastic fluid for)
IT Bladder
Ureter
(introduction of instruments into, facilitation of, viscoelastic fluid for)
IT Granulation tissue
(prevention of formation of, in surgery, viscoelastic fluid for)
IT Wound
(viscoelastic fluid for scar prevention in)
IT Surgery
(viscoelastic fluid for, scar prevention in relation to)
IT **Adhesion**
(bio-, prevention of, viscoelastic fluid for)
IT Eye
(cornea, protection of, viscoelastic compn. contg. CM-cellulose and polyoxyethylene for)
IT Prosthetic materials and Prosthetics
(implants, viscoelastic compn. as, for scar prevention following surgery)
IT Surgery
(plastic, viscoelastic compn. contg. CM-cellulose and polyoxyethylene for)
IT **1320-50-9**, Dimethyl urea
RL: BIOL (Biological study)
(viscoelastic compn. contg. CM-cellulose and polyoxyethylene and, for surgery)
IT **25322-68-3**
RL: BIOL (Biological study)
(viscoelastic compn. contg. CM-cellulose and, for surgery)
IT **9004-32-4**, Carboxymethyl cellulose
RL: BIOL (Biological study)
(viscoelastic compn. contg. polyoxyethylene and, for surgery)

L12 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1991:69105 HCAPLUS
DOCUMENT NUMBER: 114:69105
TITLE: Improved viscoelastic fluid for use in surgery and other therapies and method of its use
INVENTOR(S): Pennell, Phillip E.; **Blackmore, John M.**; Allen, Mark D.
PATENT ASSIGNEE(S): MDR Group, Inc., USA

SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9004971	A1	19900517	WO 1989-US4842	19891027
W: JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
US 4983585	A	19910108	US 1988-266684	19881103

PRIORITY APPLN. INFO.: US 1988-266684 19881103
US 1987-45326 19870504

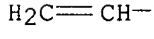
AB An improved viscoelastic fluid or gel for use in surgery and other therapies consists of polyethylene oxide (PEO) .ltoreq.15% (15,000 ppm), contained in a physiol. balanced salt soln. The PEO may also be used in conjunction with viscosity enhancers which also act as heat stabilizers, such as Me cellulose and its derivs., polyvinyl pyrrolidone or polyvinyl alc. or in conjunction with elasticizers such as low-mol.-wt. polyethylene glycols or polypropylene glycols or in conjunction with gelation modifiers. These mixts. may be modified to increase retention time in the body by crosslinking with the use of materials like dimethylurea. The invention encompasses the method of protecting and lubricating the corneal tissues during surgery with uses of different concns. of the same soln. introduced simultaneously to protect the inner cornea while periodically irrigating the outer cornea, without obscuring the surgeon's view of the site. It also prevents the development of wound **adhesion** and has many utilizations in orthopedics.

IT **9002-89-5**, Poly(vinyl alcohol) **9003-39-8**
9004-32-4, Carboxymethyl cellulose **9004-62-0**
9004-64-2, Hydroxypropyl cellulose **9004-65-3**,
Hydroxypropylmethyl cellulose **9004-67-5**, Methyl cellulose
25322-69-4 106392-12-5
RL: BIOL (Biological study)
(viscoelastic compn. contg. polyethylene oxide and, for surgery and prosthetics)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (9CI) (CA INDEX NAME)

CM 1

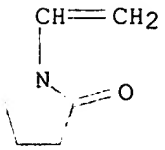
CRN 557-75-5
CMF C2 H4 O



RN 9003-39-8 HCAPLUS
CN 2-Pyrrolidinone, 1-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88-12-0
CMF C6 H9 N O



RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

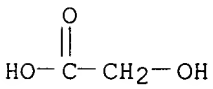
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-62-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether (8CI, 9CI) (CA INDEX NAME)

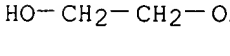
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-21-1
CMF C2 H6 O2



RN 9004-64-2 HCAPLUS
CN Cellulose, 2-hydroxypropyl ether (9CI) (CA INDEX NAME)

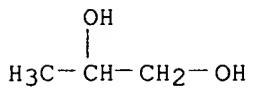
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9004-65-3 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl ether (9CI) (CA INDEX NAME)

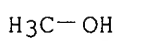
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

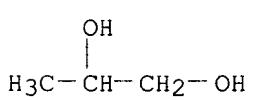
CM 2

CRN 67-56-1
CMF C H4 O



CM 3

CRN 57-55-6
CMF C3 H8 O2



RN 9004-67-5 HCAPLUS
CN Cellulose, methyl ether (8CI, 9CI) (CA INDEX NAME)

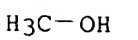
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

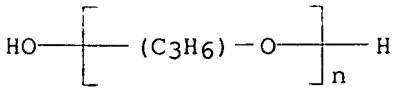
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1
CMF C H4 O



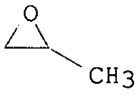
RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 106392-12-5 HCAPLUS
CN Oxirane, methyl-, polymer with oxirane, block (9CI) (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O



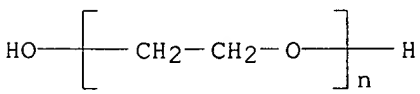
CM 2

CRN 75-21-8
CMF C2 H4 O

IT **131854-14-3 131878-61-0 25322-68-3**
RL: BIOL (Biological study)
(viscoelastic compn. contg., for surgery and prosthetics)
RN 131854-14-3 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl ether, polymer with formaldehyde, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and urea (9CI) (CA INDEX NAME)

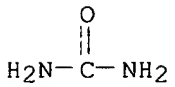
CM 1

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS



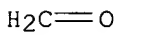
CM 2

CRN 57-13-6
CMF C H4 N2 O



CM 3

CRN 50-00-0
CMF C H2 O



CM 4

CRN 9004-65-3
CMF C3 H8 O2 . x C H4 O . x Unspecified

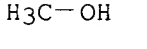
CM 5

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

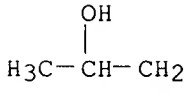
CM 6

CRN 67-56-1
CMF C H4 O



CM 7

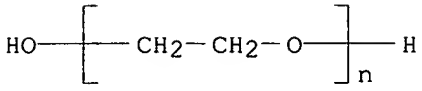
CRN 57-55-6
CMF C3 H8 O2



RN 131878-61-0 HCAPLUS
CN Cellulose, carboxymethyl ether, polymer with N,N-dimethylurea, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl), methyloxirane and oxirane (9CI) (CA INDEX NAME)

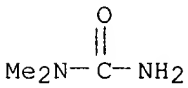
CM 1

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS



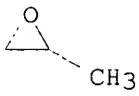
CM 2

CRN 598-94-7
CMF C3 H8 N2 O



CM 3

CRN 75-56-9
CMF C3 H6 O



CM 4

CRN 75-21-8
CMF C2 H4 O

CM 5

CRN 9000-11-7
CMF C2 H4 O3 . x Unspecified

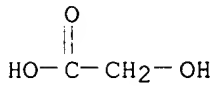
CM 6

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

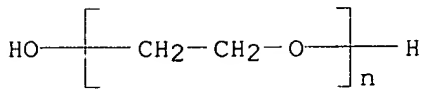
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 7

CRN 79-14-1
CMF C2 H4 O3



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- (9CI) (CA INDEX NAME)



IC ICM A61K033-34
ICS A61K047-00
CC 63-7 (Pharmaceuticals)
ST gel polyethylene oxide eye surgery; orthopedic surgery polyethylene oxide soln
IT Wound
(**adhesions** in, prevention of, viscoelastic compn. contg. polyethylene oxide for)
IT Synovial fluid
(substitutes, viscoelastic compn. contg. polyethylene oxide for)
IT Calculi, urinary
(treatment of, viscoelastic compn. contg. polyethylene oxide for)
IT Prosthetic materials and Prosthetics
Surgery
(viscoelastic compn. contg. polyethylene oxide for)
IT Inflammation inhibitors
(antiarthritics, viscoelastic compn. contg. polyethylene oxide for)
IT Eye
(cornea, protection of, in surgery, viscoelastic compn. contg. polyethylene oxide for)
IT Surgery
(orthopedic, viscoelastic compn. contg. polyethylene oxide for)
IT **9002-89-5**, Poly(vinyl alcohol) **9003-39-8**
9004-32-4, Carboxymethyl cellulose **9004-62-0**
9004-64-2, Hydroxypropyl cellulose **9004-65-3**,
Hydroxypropylmethyl cellulose **9004-67-5**, Methyl cellulose
25322-69-4 106392-12-5
RL: BIOL (Biological study)
(viscoelastic compn. contg. polyethylene oxide and, for surgery and prosthetics)
IT **131854-14-3 131878-61-0 25322-68-3**
RL: BIOL (Biological study)
(viscoelastic compn. contg., for surgery and prosthetics)